

What is claimed is:

1 1. A method for automated provisioning of computer networks,
2 comprising the steps of:
3 receiving at least one command to be executed on a network device;
4 reading parameters from a network database related to the at least one
5 command;
6 determining whether the at least one command can be properly executed
7 based upon the parameters read; and
8 executing the at least one command only if it is determined that the at least
9 one command can be properly executed.

1 2. The method of claim 1, wherein the at least one command is executed
2 by an agent.

1 3. The method of claim 2, wherein the agent has the highest level of
2 access for the network device.

1 4. The method of claim 1, further comprising the steps of:
2 receiving the message that at least one command is to be executed from a
3 secure provisioning network; and
4 verifying the validity of the message by requesting verification from the
5 secure provisioning network.

1 5. The method of claim 4, wherein the step of verifying is accomplished
2 by way of communicating with a communication gateway of the secure
3 provisioning network.

1 6. The method of claim 1, wherein the step determining is based on
2 reading software packaging parameters.

1 7. The method of claim 6, wherein the software packaging parameters
2 comprise compatibility requirements.

1 8. The method of claim 6, wherein the software packaging parameters
2 comprise software roles.

1 9. The method of claim 7, wherein the compatibility requirements
2 comprise software roles compatibility requirements.

1 10. The method of claim 6, wherein the software packaging parameters
2 comprise operating system (OS) parameters.

1 11. The method of claim 7, wherein the compatibility requirements
2 comprise operating system (OS) compatibility requirements.

1 12. The method of claim 6, wherein the software packaging parameters
2 comprise parameters regarding specific customer account requirements.

1 13. The method of claim 7, wherein the compatibility requirements
2 comprise requirements regarding specific customer account compatibility.

1 14. The method of claim 8, wherein the software roles comprise customer
2 account software roles.

1 15. The method of claim 9, wherein the software roles compatibility
2 requirements comprise customer account software roles compatibility
3 requirements.

1 16. The method of claim 6, wherein the software packaging parameters
2 comprise device parameters.

1 17. The method of claim 16, wherein the device parameters comprise
2 device interface parameters.

1 18. The method of claim 17, wherein the device interface parameters
2 comprise device internet protocol (IP) address parameters.

1 19. The method of claim 17, wherein the interface parameters comprise
2 interface type parameters.

1 20. The method of claim 16, wherein the device parameters comprise
2 interface components parameters.

1 21. The method of claim 16, wherein the device parameters comprise
2 memory components parameters.

1 22. The method of claim 16, wherein the device parameters comprise
2 storage components parameters.

1 23. The method of claim 16, wherein the device parameters comprise
2 central processing unit (CPU) parameters.

1 24. The method of claim 7, wherein the compatibility requirements
2 comprise device compatibility requirements.

1 25. The method of claim 24, wherein the device compatibility
2 requirements comprise interface compatibility requirements.

1 26. The method of claim 25, wherein the interface compatibility
2 requirements comprise IP compatibility requirements.

1 27. The method of claim 25, wherein the interface compatibility
2 requirements comprise interface type compatibility requirements.

1 28. The method of claim 24, wherein the device compatibility
2 requirements comprise interface components compatibility requirements.

1 29. The method of claim 24, wherein the device compatibility
2 requirements comprise memory components compatibility requirements.

1 30. The method of claim 24, wherein the device compatibility
2 requirements comprise storage components compatibility requirements.

1 31. The method of claim 24, wherein the device compatibility
2 requirements comprise central processing unit (CPU) components compatibility
3 requirements.

1 32. The method of claim 8, wherein software roles compatibility
2 requirements comprise device roles compatibility requirements.

1 33. The method of claim 9, wherein the software roles comprise device
2 roles.

1 34. The method of claim 6, wherein the software packaging parameters
2 comprise application packaging parameters.

35. The method of claim 7 wherein the compatibility requirements
comprise application compatibility requirements.

36. The method of claim 8, wherein the software roles comprise
application software roles.

37. The method of claim 36, wherein the application software roles define
a group of services.

38. The method of claim 9, wherein the software roles compatibility
requirements comprise application roles compatibility requirements.

39. The method of claim 38, wherein the application roles compatibility
requirements define a group of services.

40. The method of claim 6, wherein the software packaging parameters
relate to a variety of network service tiers.

41. The method of claim 7, wherein the compatibility requirements are
defined according to a variety of network service tiers.

42. The method of claim 6, wherein the software packaging parameters
are defined by way of configuration parameters.

43. The method of claim 42, wherein the configuration parameters
comprise device configuration parameters.

44. The method of claim 42, wherein the configuration parameters
comprise interface configuration parameters.

1 45. The method of claim 42, wherein the configuration parameters
2 comprise virtual IP address parameters.

1 46. The method of claim 42, wherein the configuration parameters
2 comprise component type parameters.

1 47. The method of claim 42, wherein the configuration parameters
2 comprise role configuration parameters.

1 48. The method of claim 47, wherein the role configuration parameters
2 comprise device role configuration parameters.

1 49. The method of claim 48, wherein the device role configuration
2 parameters comprise device role history configuration parameters.

1 50. The method of claim 7, wherein the compatibility requirements
2 comprise configuration compatibility requirements.

1 51. The method of claim 50, wherein the configuration compatibility
2 requirements comprise device configuration compatibility requirements.

1 52. The method of claim 50, wherein the configuration compatibility
2 requirements comprise interface configuration compatibility requirements.

1 53. The method of claim 50, wherein the configuration compatibility
2 requirements comprise virtual IP address compatibility requirements.

1 54. The method of claim 50, wherein the configuration compatibility
2 requirements comprise component type configuration compatibility requirements.

1 55. The method of claim 50, wherein the configuration compatibility
2 requirements comprise role configuration compatibility requirements.

1 56. The method of claim 55, wherein the role configuration compatibility
2 requirements comprise device role configuration compatibility requirements.

1 57. The method of claim 56, wherein the device role configuration
2 compatibility requirements comprise device role history configuration
3 compatibility requirements.

1 58. The method of claim 1, wherein the step of executing the at least one
2 command is limited to entities having an approved access level to execute the at
3 least one command.

1 59. The method of claim 58, wherein the access to execute the at least one
2 command is defined in an access control list (ACL).

1 60. The method of claim 58, wherein the access control list ACL is
2 defined by domain name server (DNS) address of the network device.

1 61. The method of claim 58, wherein the entity executing the at least one
2 command comprises an agent.

1 62. The method of claim 61 wherein the access to the agent is limited
2 according to domain name server (DNS) address of the network device.

1 63. The method of claim 9, wherein the software roles compatibility
2 requirements relate to an IP address of the network device.

1 64. The method of claim 9, wherein the software roles compatibility
2 requirements relate to IP address compatibility requirements.